



RECEIVED

MAY 10 2001

TECHNOLOGY CENTER R3700

REPLACEMENT PAGES FOR SPECIFICATION

DESCRIPTION – Figures 1, 1A and 2

A preferred embodiment of the invention is illustrated in Figures 1, 1A and 2 (top views). The invention is used under a wall-mounted urinal in men's restrooms. The cartridge-top 12 (Figure 1) is made of polypropylene, polyethylene, vinyl, nylon, rubber or any other material that can be molded or injection-molded in this fashion.

The dimensions and configurations of the cartridge-top-12 are:

1. The thickness is typically .5mm to 1.5mm and has overall dimensions of roughly 52cm (square shaped).
2. In the preferred embodiment, the front dimension is narrowed to approximately 22mm x 24mm providing more comfortable standing room.
3. The front has also been beveled, or sloped, and rounded to minimize tripping and/or snagging and potential personal injury.

The cartridge-top 12 includes a rigid edge portion 20 for being disposed over and engaging the base unit 18. The rigid end portion 20 extends over the base unit 18 in engagement with the base unit 18. The base unit-18 correspondingly including a rim portion 22 which is able to mate with the rigid edge portion 20 of the cartridge-top 12. This rim portion 22 extends around the perimeter of the base unit 18, thereby providing a solid mating engagement with the cartridge-top 12 on all sides. The rigid edge portion 20 includes an internal tunnel surface that sits over and mates with the upwardly projecting rim portion 22 of the base unit 18 about the complete perimeter of

the unit. This interconnection maintains the cartridge top 12 onto base unit 18 while allowing for easy separation and disposal of the cartridge 12. Also, it provides an excellent seated arrangement of the cartridge 12 in the base 18.

The absorbent core (Figure 1A) is manufactured from super-absorbent material 14 such as polymer or fiber in a percentage to cotton-fluff depending upon the embodiment. In the preferred embodiment, the Super-absorbent material 14 is in a ten-percent proportion to the cotton-fluff. The core is sealed with a moisture barrier 16 (Figure 10) to prevent leakage of the liquid into the base unit 18. It is sonic-welded to the cartridge-top 12, fixed with adhesives, or attached in some similar fashion.

The base unit 18 is secured to a surface with various types of fasteners including Velcro or Hoop and Loop devices. In the preferred embodiment, a Hoop and Loop device from 3M Corporation will be used. The base unit 18 is typically .5mm to 3.0mm thick with 75 to 95 durometer providing flexibility for various sloping surfaces.

Additional Embodiments

Additional embodiments include the use for wall-mounted toilets. This embodiment is a longer system for the additional length required. Another embodiment is for use with floor-mounted toilets with an appropriate cutout. A further embodiment for residential or office use includes dimensions of

1

approximately 55cm by 40cm. It protects floors from wet boots and shoes. A similar embodiment, but larger in size, is used in entrances to commercial buildings. In this embodiment, several separate floor protection units 10 are joined together to provide a larger area of surface protection. A variety of methods to connect the units 10 can be employed. Finally, embodiments of a smaller size can be used on countertops and liquid vending machines. The size would approximate 30cm x 10cm to 80cm x 30cm.

Alternative Embodiment

There are various possibilities with regard to the design of the cartridge-top 12 waffle grid (Figure 3). The shape can be that of any geometric design that provides an opening at the top with a smaller outlet at the bottom. Any polygon or conical configuration allowing liquid to flow into the absorbent core 14 (Figure 1A) with a minimum of splashing may be used.

ADVANTAGES

From the description above, a number of advantages with this invention in the preferred embodiment are evident:

- (a) Restroom floors are dryer with urine drips and splashes contained inside the cartridge-top's 12 absorbent core 14.
- (b) Maintenance is greatly decreased because the cartridge-top 12 is disposable, requiring no cleaning or rinsing.
- (c) Cross-contamination is virtually eliminated because

C

shoes need not touch the cartridge-top 12.

(d) Tripping hazard is minimized by the beveled front edge of the cartridge-top 12.

In the additional embodiments, the following advantages are apparent:

(a) Application includes floor and wall-mounted toilets and urinals.

(b) Residential and office use protects floors from wet footwear.

Commercial businesses can minimize slip and fall hazards in wet weather.

(c) Surface protection can be given to vending machines which dispense liquids (hot or cold).

Operation

The manner of using the floor protection system is to place the base unit 18 under a urinal. It is secured to the floor with the fastener provided. The cartridge-top 12 (containing the mated absorbent core) is snapped into the top of the base unit 18. In the preferred embodiment, the cartridge-top 12 is changed on a scheduled basis, usually weekly.

In the additional embodiments, the absorbent core 14 will container

C

higher amounts of polymers or fibers. The suggested change cycle is thirty days. If necessary, more frequent changes may be made. For each of the additional embodiments, the operation is the same. The base unit 18 is placed in a desired spot and fastened to the surface. The cartridge-top 12 is positioned on top of the base unit 18 and snapped into place.

Conclusion, Ramification, and Scope

Accordingly, the reader will see that while its main focus is on floor protection, the invention addresses countertop and other surfaces as well.

When used in the floor protection embodiment, the base unit-18, secured to the floor, cannot be easily dislodged. This provides more consistent protection. Maintenance is simplified by disposing both the cartridge-top 12 and the mated absorbent core during routine trash collection. No cleaning or rinsing of the cartridge-top 12 is required. Costly maintenance time is also reduced.

Users do not stand on the floor protection system 10, minimizing cross-contamination from shoes. Additionally, the beveled front edge of the cartridge-top 12 reduces trip and fall hazards. In other applications, the invention provides liquid protection to carpeted or wood floors and countertops in residents and offices.

Although the description above contains many specifics, these should

not be construed as limiting the scope of the invention. It merely provides illustrations of some of the presently preferred and additional embodiments. For example, the invention can have other shapes (i.e. circular, oval, trapezoidal, triangular, etc.). The cartridge-top's 12 waffle grid can also have other shapes and designs. The cartridge-top 12 could even be separate from the absorbent core, allowing changing of the core only, etc.

Thus, the scope of the invention should be determined by the appended claims and their legal equivalents, rather than by the examples given.

A handwritten mark or signature consisting of a stylized, cursive letter 'C' or similar shape, located in the bottom right corner of the page.